



## SUBSTITUTE GOVERNANCE STRUCTURE AND THE EFFECT OF MONITORING: EVIDENCE FROM BANGLADESH

*Mohammad Azim\**

### Abstract

This paper investigates the role of monitoring mechanisms in a corporate governance structure, focusing on listed companies in a developing country, Bangladesh. Specifically, it examines whether different interrelated monitoring mechanisms - board of directors and committee, management and external auditors - affect firm performance. This research found the possibility of having a substitution or complementary links in monitoring mechanisms that explain why there is no consistent empirical evidence between individual monitoring mechanisms and firm performance. This study has policy implications for the Bangladeshi corporate environment. Progress of implementation of the guidelines appears to be reasonable. However, credibility of the reported figures and quality of implementation remain open to discussion. To what extent these status reports reflect improved governance or are largely a form of paper compliance is a debatable issue. This research also suggests that when considering any change in corporate monitoring, the Bangladeshi government should take into account the nation's business, social structure, culture and legal practices.

**Keywords:** Bangladesh; Monitoring; Performance; Structural Equation Modelling; Corporate Governance Guideline

---

*\*Accounting and Finance, Swinburne University of Technology, Faculty of Business and Enterprise, Hawthorn VIC 3122,*

*AUSTRALIA*

*Tel: +61 3 9214 4500*

*Fax: +61 3 9819 2117*

*Email: mazim@swin.edu.au*

---

## Introduction

The separation of ownership and control in publicly owned companies has the potential to create conflict between the interests of managers and shareholders. Such conflict can be reduced by devising effective monitoring mechanisms. However, corporate governance is the product of a complex set of cultural, economic, and social and legal structures; which differ from country to country. It is appropriate that corporate governance guidelines and practice codes be designed and adopted by each constituent country. Therefore, to reduce conflict between shareholders (principal) and management (agent), it is necessary to have culturally, economic and socially specific corporate governance practices that can be monitored by capital market regulators.

Previous research has focused on examining different governance mechanisms, typically studying one or two governance variable(s), such as board of directors (Hermalin and Weisbach, 2001), management ownership (Shivdasani, 1993; Kaplan and Minton, 1994), audit committees (Ramsay, 2001), and external auditors (Watts and Zimmerman, 1990), in terms of their impact on firm performance. These studies are largely based on American, British, Japanese, German and Australian companies (Farrar, 2008). Very little research has been done on developing countries. Firstly, however, firm performance depends on the efficiency of a bundle of monitoring mechanisms in controlling the agency problem (Rediker and Seth, 1995, p. 87; Agrawal and Knoeber, 1996, p. 378). Secondly, the emerging capital markets in developing countries differ from developed ones in terms of legal, institutional, political and regulatory practices.

The importance of corporate governance practices in emerging economies is increasingly evident to domestic as well as international bodies (Farooque, 2007). In recent years corporate governance has emerged as an important issue for Bangladesh due to the ongoing effects of globalisation, as the domestic economy integrates with the global economy and companies strive to gain international competitiveness (Farooque, 2007). Bangladesh, a developing country, has a very different capital market, board structures and governance objectives than the USA, UK, Australia, Germany and Japan. Conclusions reached in previous studies may not be applicable to Bangladesh. This study is motivated by a need for understanding how monitoring mechanisms work in Bangladesh, and the role of market-specific factors versus governance characteristics in determining the effectiveness of Bangladeshi corporate monitoring mechanisms, especially following the introduction of the Corporate Governance Guideline by the Securities and Exchange Commission in 2006. Little research has been done on Bangladesh in examining the implication of the corporate governance guidelines

(hereafter 'guideline') on company performance. Therefore it is important to understand how effective and efficient such guidelines are in addressing the needs of the capital market.

Market regulators are seriously enforcing the implementation of this guideline to reforming companies' corporate monitoring structures. The guideline includes areas such as board size, independent directors, chairperson and CEO, internal control and audit, function of company secretary, audit committee and appointment of an external auditor. The guideline is still on a 'comply or explain' basis. This research develops a conceptual model to classify monitoring mechanisms and map their potential effects on firm performance. Profit-based firm performance measures are used as representative of shareholders' interests in the model.

For testing the propositions this research uses the *Structural Equation Modelling* (SEM) technique. This specific statistical tool is used here because SEM is able to deal with multicollinearity and reveals potential complex interrelationships between monitoring mechanisms. There are three specific reasons why this research uses SEM. Firstly, in this research on corporate monitoring, it is not possible to observe most of the variables directly and these are termed latent variables. SEM is able to incorporate latent variables into the analysis. By using SEM with multiple indicator variables, it is possible to model important latent variables. Secondly, in all multivariate analyses it is assumed that there is no error in the variables but from practical and theoretical perspectives it is impossible to perfectly measure a latent concept without some degree of error. However, SEM makes it possible to account for error and improve the statistical estimate. Thirdly, SEM is a powerful tool with which to measure multicollinearity in sets of predictor variables. The SEM examines a series of dependent relationships simultaneously. This is particularly useful when one dependent variable becomes an independent variable in subsequent dependent relationships (Wooldridge, 2003).

This paper is organised into six sections: section 2 discuss the theoretical basis for this research. Section 3 discusses capital market in Bangladesh, followed by a literature review for this research in section 4. Section 5 develops research propositions, and methodology. Analysis of the results is presented in section 6 and section 7 provides concluding comments and highlights possible future research.

## Theoretical Basis for this Research

Agency theory is concerned with aligning the interests of owners and managers (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983a,b) and is based on the premise that there is an inherent conflict between the interests of owners and managers (Fama and Jensen, 1983a). According to contracting theory, the agreed agent's role is to act in the best interests of

the principal. In reality, however, managers' motive may be to ensure their own job security, prestige and personal wealth. This motive gives rise to decisions and actions that conflict with the interests of shareholders.

The clear implication for corporate governance, from an agency theory perspective, is that adequate monitoring or control mechanisms need to be established to protect shareholders from the agency risk in the modern corporation (Fama and Jensen, 1983a,b). In general, agency risk has a negative impact on firm performance (McColgan, 2001). Agency risk results in costs: *monitoring costs*, which refer to monitoring the agent's behaviour; *bonding costs*, which are the costs associated with inducing the management to work in the best interests of the principal; and *residual loss*, any remaining losses to shareholders when the agents' and principals' interests are at odds with each other (Jensen and Meckling, 1976).

In contrast, stewardship theory assumes that managers behave as the stewards of a company's assets, not agents for shareholders (Donaldson, 1990; Donaldson and Davis, 1991; 1994). Stewardship theory deduces that superior corporate performance is linked to the existence of a majority of inside directors. These inside directors, it is argued, hold a steward's perspective, meaning they exercise their intimate understanding of the business, their commitment and access to operating information and technical expertise, all in the interests of the company. These factors give them an advantage over outside directors (Donaldson, 1990; Donaldson and Davis, 1991). The theory argues that the economic performance of a firm increases when power and authority is concentrated in a single executive, who is not distracted by external non-executive directors (Donaldson and Davis, 1991). In this respect, stewardship theory directly challenges agency theory where monitoring is believed to affect firm performance.

In this paper, agency theory assumes the dominant perspective, i.e. assumptions about the management-shareholder conflict problem and the need to increase monitoring cost by implementing various corporate governance structures and mechanisms. This paper focuses on the complex interrelationships between corporate governance monitoring mechanisms and their substitution or complementary effects on key corporate performance measures that are important to shareholders.

The literature has been begun to address the issue of lack of theory at a more micro-level to explain complex interrelationships between corporate governance mechanisms. To some extent, the vacuum of formal theory has been filled by empirical research (Hermalin and Weisbach, 2003). The empirical literature on the monitoring functions of management, board of directors and auditors is well developed, whereas a theory that can underpin the complexities

of these alternative monitoring mechanisms is still in its infancy. It is likely that subsequent development in theory will lead to more sophisticated design and interpretation for future empirical analysis (Hermalin and Weisbach, 2003).

## Capital Market in Bangladesh

Bangladesh is one of the least developed countries (USAid, 2007) in South East Asia. The capital market is relatively underdeveloped with a market capitalisation of only 6% of gross domestic product (GDP) ("Roundtable discussion", 2006). There are two stock exchanges in Bangladesh: firstly, *Dhaka Stock Exchange* (DSE) established in 1954; and secondly, *Chittagong Stock Exchange* (CSE) established in 1995. Both exchanges are private sector entities, self-regulated and have their own Security and Exchange Commission-approved operating rules. Currently there are 351 companies listed on DSE and 243 companies on CSE (SEC, 2009). As the regulatory authority of Bangladesh's capital market, the SEC was established on June 8, 1993 under the *Securities and Exchange Commission Act, 1993* (Act XV of 1993). To govern the corporate environment in Bangladesh the following legal measures are operating: (i) Securities and Exchange Ordinance 1969, (ii) Bangladesh Bank Order 1972, (iii) Bank Companies Act 1991, (iv) Financial Institutions Act 1993, (v) Securities and Exchange Commission Act 1993, (vi) Companies Act 1994, and (vii) Bankruptcy Act 1997.

There are a number of factors hindering the development of Bangladesh's capital market. Solaiman (2006, p. 195) found that 'the existence of weak legal and regulatory frameworks, the absence of active market professionals, the predominance of individual investors, and a serious dearth of foreign and institutional investors', seriously hinder the development of a capital market. There have been some attempts at reform but most initiatives are far from ready. Nothing significant has been done to protect investors except the corporate governance guideline introduced in 2006.

The neighbouring countries are well ahead vis - à-vis Bangladesh in terms of depth of capital market. For example, in India, Pakistan and Sri Lanka, the market capitalisation is 56%, 30% and 18% of their GDP respectively. In Bangladesh, corporate governance guidelines are still on a "comply or explain" basis, providing some 'breathing space' for the companies to implement on the basis of their abilities. Around 66.7% of the companies adopted corporate governance and 43.3% have a compliance policy so that they are consistent with national or international benchmarks.

## Corporate Governance Guidelines

The introduction of the *Guidelines* in February 2006 is expected to provide effective monitoring and legal protection to investors. It also expects to enhance the confidence of investors. Under the *Guidelines*, all companies listed on Bangladesh's stock exchanges need to follow a "if not why not" approach. Again, directors should state in statutory declarations which conditions the company complies with and those that they are not, with explanations for non-compliance. These *Guidelines* contain three major monitoring groups: the (i) board of directors; (ii) chief financial officer, head of internal audit and company secretary and audit committee; and (iii) external auditors. Existing literature supports the premise that these monitoring mechanisms influence firm performance as shown in Shivdasani (1993), Kaplan and Minton (1994), Hermalin and Weisbach (2003) and Holderness (2003).

### [Figure 1 About Here]

## Board of Directors

The first category in the *Guidelines* relates to the board of directors. Boards are responsible for ensuring that management's behaviour and actions are consistent with the interests of shareholders. Boards have the power to hire, fire and compensate executive managers and to ratify and monitor important decisions (Fama and Jensen 1983a; Jensen, 1993). The theoretical role of the board in monitoring and disciplining management is firmly grounded in the agency framework of Fama and Jensen (1983a,b). Empirical examination of board characteristics and firm performance focuses on: board size (e.g. Jensen, 1993; Yermack, 1996); independent directors (Dechow et al., 1996; Beasley, 1996, 2001); separate role of chairperson (Chair) and Chief Executive Officer (CEO) (Jensen, 1993); financial literacy (DeZoort, 1997); and board committees (Austin, 2002; Menon and Williams, 1994).

**Board size:** In general larger boards are more likely to be vigilant for agency problems, simply because a greater number of people are reviewing management actions (Kiel and Nicholson, 2003). However, if the size of the board becomes too large (beyond the standard threshold), effectiveness of monitoring diminishes (Ryan and Wiggins, 2004). A large board increases problems of *free-riding* and it becomes difficult for directors to express their ideas and opinions in the limited time available during meetings (Golden and Zajac, 2001). It is also suggested that too large boards are relatively ineffective and difficult for the CEO to control (Lipton and Lorsch, 1992; Jensen, 1993). Kiel and Nicholson (2003) found an 'inverted U' relationship between board size and performance, adding that directors can bring the board to an optimal

skills/experience mix level. However, beyond that point the difficult dynamics of a large board prevail over the skills/expertise advantage that additional directors might bring. In general, board size will differ depending on country-specific factors, regulatory requirements, types of business and complexity of the business.

In Bangladesh, the *Guidelines* have set maximum and minimum numbers of board members for listed companies at 20 and 5 respectively. The *Guidelines* also suggest that boards of banks and non-bank financial institutions, insurance companies and statutory bodies should be constituted as prescribed by their respective primary regulators.

**Independent directors:** Independent directors are those board members who do not hold any executive position in the company or have any direct or indirect interest in the company (Suchard et al., 2001). It is generally argued that independent directors are more likely to protect shareholders' interests and reduce agency problems, add value to firms by providing expert knowledge and monitoring services (Fama, 1980; Fama and Jensen, 1983a). Hermalin and Weisbach (2001) report a number of findings: smaller boards and the greater proportion of independent directors each appear to lead management teams to take actions that are more in line with shareholders' interests; while boards with a larger ratio of outsiders are more likely to remove a poorly performing manager. A greater proportion of independent directors will be able to monitor any self-interested actions of managers and thus minimise agency costs (Fama, 1980; Fama and Jensen, 1983a).

By considering the above issues, the *Guidelines* encourage all listed companies to have 'independent, non-shareholder' directors. The term 'independent, non-shareholder' means directors who hold less than 1% or no company shares and have no direct personal or business relationship with the company, its promoters or directors. SEC also directs that non-shareholder directors should be appointed by *elected* directors. The *Guidelines* suggest that one-tenth (subject to minimum of one) must be independent non-shareholder directors. The emphasis on independent, non-shareholder directors suggested in the *Guidelines* is consistent with the *Cadbury Report* (1995), which emphasises improved board monitoring by increasing its independence from management and independent directors working for the best interests of shareholders.

**Separate role of Chairperson and CEO:** In business, the two most important business positions are the chairperson of the board and Chief Executive Officer (CEO). These positions should be filled by different individuals since their functions are necessarily separate (Cadbury, 1995). The position of chairperson significantly influences the outcome of board decisions as the person controls board meetings, sets its agenda, makes committee assignments and influences the selection of new directors. The position

of CEO is also influential as he/she is responsible for any operating and financial decision-making.

It has been argued that dual chair-CEO leadership role enables a CEO to have more opportunity to act in their self-interest (Jensen, 1993). Holding the position of both CEO and chair has been criticised as inappropriate in terms of influencing critical power relationships in the firm (Jensen, 1993). It is argued that where the two roles are combined in one person, it is more likely that the CEO will be able to control the board, reducing the board's independence from management, and making decisions in their self-interest at the expense of shareholders. To maintain independence, it is necessary that the board is independent from the CEO (Hermalin and Weisbach, 2001).

In the *Guidelines*, SEC added the condition that the chair and CEO (or Managing Directors) are held by separate persons. In Bangladesh, companies have a CEO position but managing director is a more commonly used term. The *Guidelines* stated the chair of the board should be elected from the directors. This means an independent, non-shareholding director can be elected as chair. This might create some concern regarding confidentiality of information, as an independent, non-shareholding director can also be a director of other companies with similar operations and interests.

**Audit committee:** The audit committee, a sub-committee of the board, is delegated specific financial oversight responsibilities (Menon and Williams, 1994). An audit committee is now being treated as a principal player in ensuring good corporate governance and rebuilding public confidence in financial reporting. The audit committee has the following functions: monitoring integrity of financial statements, reviewing internal financial controls, recommending appointment of external auditor and reviewing auditor independence and objectivity and audit effectiveness (Bosch, 1995; Klein, 1998). In reducing agency conflicts, audit committees function as a monitoring mechanism and their function has been emphasised by many researchers (e.g., Abbot and Parker, 2000; Chen et al., 2005).

The *Guidelines* make it mandatory for all listed companies to have an audit committee. Furthermore the audit committee should consist of at least three members including one independent and non-shareholder director. The *Guidelines* also emphasise that the chair of the audit committee should have professional qualifications, knowledge, understanding or experience in accounting or finance. If members of the audit committee are financially literate, it is expected they will work more efficiently for the best interests of shareholders. Frequent audit committee meetings with independent and financially literate directors on the committee will enhance the monitoring ability of audit committees. The provisions set by the Security and Exchange Commission implicitly impose the condition that

there should be at least one member on the audit committee with a professional qualification or knowledge, understanding or experience in accounting and finance.

The *Guidelines* also state that the audit committee reports to the board on its activities and any conflict of interest, fraud or irregularity, suspected infringement of laws or any other matter which they think necessary to disclose. Additionally the *Guidelines* empower the audit committee to report to the Security and Exchange Commission directly in case its proposals are ignored by the board and management without a valid reason. Audit committees should also be responsible to the shareholders and that report should be signed by the chair of the audit committee.

#### **Monitoring by Management and Audit Committee:**

The company must appoint a chief financial officer, head of internal audit and company secretary. The board of directors should clearly define these roles and it is mandatory for these persons to attend board meetings except where any agenda items relate to them.

**Chief financial officer:** The CEO provides overall leadership and vision in developing the company's strategic direction, tactics and business plans necessary to realise revenue and earnings growth, and increase shareholder value.

**Head of internal audit:** The head of internal audit is responsible for focusing and planning specific audits. The responsibilities of the internal audit division vary with the size, complexity and type of business. Some of the internal audit division functions are routine compliance auditing but may include duties in general accounting areas and even performance auditing. The function and duties of the head should be defined clearly.

**Company secretary:** The company secretary is the chief administrator of the company. A company secretary's functions are connected with convening meetings of the board of directors. This requires the company secretary to be fully conversant with relevant law and meeting procedures. The *Cadbury Committee on Corporate Governance* (Cadbury, 1995) recognised the company secretary's unique position has a key role in ensuring that board procedures are followed and regularly reviewed. The chair and board look to the company secretary for guidance on their responsibilities.

#### **External Auditors**

Auditors serve to increase the quality of financial reporting. To maintain the quality of an audit, auditors need to be independent. Auditors do not directly monitor management, however, they provide an assurance service that improves the quality of information. The extent to which financial statements can reduce agency costs depends on the quality of the

audit. Although the preparation and audit of financial statements is required by the *Companies Act 1994*, there is significant variation in the quality and independence of audits. A major threat to audit quality and independence is the provision of both audit and non-audit services by accounting firms. Sharma and Sidhu (2001) find auditor independence is compromised when non-audit services are high in relation to audit fees.

Lack of auditor independence will reduce audit quality through the auditor's reluctance to report any detected misstatements. Therefore, with respect to auditor monitoring, the general finding is that a high level of competence and independence is compulsory for a high quality audit. Empirical studies find that *Big 4* audit firms have brand names that are associated with higher quality audits (DeAngelo, 1981; Dye, 1993; Craswell et al., 1995). DeAngelo (1981) argues that large audit firms have stronger incentives to protect their reputations because they lose clients if they produce low quality audits. Dye (1993) argues that large audit firms face greater risk of litigation, and hence, large audit firms have stronger incentives to avoid litigation by supplying audits of high quality. Craswell et al. (1995) find large audit firms earn significantly higher fees and they attribute part of this premium to investments in expertise by large audit firms. From the above findings it is reasonable to assume that audit firm size is a good proxy for audit quality.

A major threat to auditor independence, identified in the literature, is the joint provision of audit and non-audit services. This can both increase the competence and cost-effectiveness of audit firms and reduce the actual or perceived independence of the auditor (Arrunada, 1999). The revenue-based independence threat is suggested by a positive association between audit fees and non-audit service (e.g., Simunic, 1984; Palmrose 1986; Davis et al., 1993; Craswell et al., 1995; Butterworth and Houghton 1995).

Publicly traded companies in Bangladesh\* are required to have audits under the Corporations Act 1994. However, quality of audits, and subsequent ability to reduce agency costs, varies significantly (DeAngelo, 1981). DeAngelo (1981) defines *audit quality* as the joint probability that an auditor will: (i) detect a material misstatement in the financial report if one exists (auditor competence); and (ii) report the misstatement if it is detected (auditor independence).

\* In Bangladesh Rahman Rahman Huq is the only audit firm that is affiliated with any *Big 4* audit firm. RRH represents KPMG International Cooperative ("KPMG International"). Other audit firms having links with 3 other *BIG 4* audit firms are: Howlader Younus and Co. and S.F. Ahmed and Co. (link with Ernst & Young); Hoda Vasi Chowdhury and Co. (link with Deloitte Touche Tohmatsu); and A. Quasem and Co. (link with PricewaterhouseCoopers).

This definition separates audit quality into two, namely competence and independence.

The *Guidelines* prohibit the external/statutory auditors to provide selected non-audit services such as: (i) valuation services or fairness opinion, (ii) financial information systems design and implementation, (iii) bookkeeping or other services related to the accounting records or financial statements, (iv) broker-dealer services, (v) actuarial services, (vi) internal audit services, and (vii) any other service determined by the audit committee.

## Performance Measures

In the absence of strong theoretical work on implementing any particular set of performance measures, this study uses both accounting and hybrid (mixture of accounting-market) performance measures to examine the effect of monitoring on performance. Performance measures are necessary for evaluating and comparing the effectiveness of monitoring and organisational control. This study measures the financial performance of firms on the basis of financial accounting information, which is the outcome of any company's accounting and reporting systems. This information provides quantitative data concerning the financial position and how a company has performed over a certain period. The financial statements supplied by the management are subject to external audits to verify their accuracy. ROE, ROA and EPS are used as accounting measures. It is expected that the different monitoring mechanisms will influence management to work in the company's best interests and this will eventually force them to report the correct accounting information. This will have an impact on the firm's performance.

Market information is used to measure a company's hybrid performance, which is based on information from the capital market performance of the company. Monitoring enables management to have more influence in the market which could impact on market performance. PER, MBV and DY are used as hybrid (accounting and market) measures of performance.

## Proposition and Methodology

To address the issue of multicollinearity, this study uses an interrelated structural setting. It sets all monitoring mechanisms in a structural equation model in order to establish within the structural setting how the individual monitoring mechanisms affect performance. This will be the first study on Bangladesh that analyses a large number of monitoring variables in a structural setting and determines their individual effect on firm performance.

Based on SEM developed in this paper, the following null hypotheses are tested:

H1: In a joint monitoring context, firm performance is not a function of board monitoring.

H2: In a joint monitoring context, firm performance is not a function of senior management monitoring.

H3: In a joint monitoring context, firm performance is not a function of auditor monitoring.

For measuring board of directors and audit committee monitoring this paper uses: (i) size of the board, (ii) proportion of independent directors, (iii) separate CEO, (iv) members on the committee, and (v) qualification for the chair of the audit committee and chair positions. Second, monitoring by management is measured by the presence of: (i) CEO, (ii) head of internal audit, and (iii) company secretary. Third, the external auditor is measured using audit in terms of: (i) quality, and (ii) independence (Table 1).

### [Table 1 About Here]

In SEM there is no single statistical test that describes the goodness-of-fit of the model. Instead, researchers have developed a number of goodness-of-fit measures that assess the results (see Table 3 for details of results and cut-off value). For this type of study it is necessary to have enough data so important differences or relationships can be observed. SEM applications typically use 200-500 cases to fit models that derive from 8-15 observed variables. This research uses 281 listed companies on the Dhaka Stock Exchange listed companies for the year 2008, with reference to 8 monitoring mechanisms.

### Data and Firm Characteristics

Total number of companies in January 2008 is 281 companies (with \$10,822 million domestic market capitalisation). Out of 281 listed companies, 183 (65.12%) reported full compliance. Eighty-five companies (30.25%) reported partial compliance while 13 companies (4.62%) did not comply or respond (Table 2).

SEC recommended board size from 5 to 20, subject to primary regulators provision not being inconsistent. This has been complied with by 253 (90%) companies out of a total of 281 listed companies. This provision is not difficult to comply with and it is not understood why 28 companies are still non-compliant. It is possible that some of these companies exist only on paper.

### [Table 2 About Here]

Appointment of independent directors is a very important requirement. According to the guidelines, at least one tenth of directors should be independent directors who hold less than one per cent of the paid up shares or do not hold any share at all. They can not be connected with a company's promoters or directors.

It is a positive development that 202 companies have already complied with the provision.

The guidelines provide that positions of chairperson and CEO should preferably be filled by different individuals. As reported, 243 companies have already complied with the provision of appointing separate chairperson and Chief Executive Officer.

There should be a chief financial officer, a head of the internal audit and a company secretary with clearly defined roles and responsibilities. Chief Financial Officer (CFO) and company secretary are required to attend board meetings. According to the reports, 245 companies confirmed appointment of CFO, head of internal audit and company secretary.

Provision of an audit committee is an important component of the guidelines. An audit committee is required to be formed with a minimum of three directors including at least one independent director. One member should be chairperson of the committee and he/she is required to have relevant professional qualifications or knowledge, understanding and experience in accounting and finance. The committee's most important responsibility is to ensure that the company's financial statements reflect a true and fair view of its affairs and report any conflict of interest, suspected irregularity or legal infringement, etc., to the board. It is indeed encouraging that 225 (80.07%) companies out of 281 have formed audit committees.

Again, 261 (92.88%) companies reportedly ensured that their external auditors are not engaged in appraisal or valuation services, financial information system, accounting records, internal audit or other related activities.

While these statistics look very impressive, they need to be considered cautiously because these are based on reporting by the companies themselves without verification by any independent authority.

### Analysis of the Results

The model of monitoring mechanisms and their effect on the firm performance fits the data well for all performance measurements (Table 2). Chi-square to degree of freedom index (CMIN/DF) is 1.89; Root Mean Square Error of Approximation (RMSEA) = .048; adjusted goodness-of fit index (AGFI) = .91; Normal fit index (NFI) = .91; and Comparative fit index (CFI) = .95.

### [Table 3 About Here]

The results were generally consistent, when examining the impact of accounting and hybrid measures of firm performance. There are three variables in the model's monitoring mechanisms:

board of directors and audit committee; management; and external auditors. The relationships among them are significant for all the identified paths. In this research, a path diagram is developed that can present predictive relationships among constructs (i.e. the dependent-independent variable relationships), as well as associative relationships (correlations) between constructs and indicators.

### [Table 4 About Here]

#### **Hypothesis 1: Director monitoring and firm performance**

Boards of directors are the most active monitors of management. Monitoring efficiency improves when there is a sufficient number of directors making up the board, high proportion of independent directors, and the CEO and Chairperson are separate people. Yet, whether monitoring by boards affects firm performance remains unresolved in the literature. The following results show that such monitoring has an inconsistent and statistically significant (and non-significant) relationship with firm performance.

##### *Accounting performance measures*

The data for board monitoring and accounting performance (Table 4) show that the impacts of board of directors on ROE, ROA or EPS are not significant. The relationship is positive for ROE and ROA but negative for EPS. The results are consistent with conclusions reached by Bhagat and Black (2000), who examined the influence of board composition on accounting performance. They failed to find any relationship between board composition and firm performance. In general, board of directors monitoring has been found to have more impact on market performance compared to accounting performance. Board monitoring may improve the transparency of reporting but this is not necessarily reflected in accounting numbers.

##### *Hybrid performance*

Results in Table 4 find a significant result concerning differences between monitoring by board and firm performance as measured by PER, MBV and DY. The relationship is positive for PER and MBV but negative for DY. The presence of a good board monitoring structure increases confidence among shareholders and this is reflected in market performance.

Overall, this research finds significant results for hybrid performance models but no significant results for accounting performance. Therefore this research failed to reject hypothesis 1. These findings are consistent with Hermalin and Weisbach (1991), Mehran (1995), Klein (1998) and Bhagat and Black (2000), who examined the influence of board composition on firm performance and failed to find any relationships in accounting performance.

MacAvoy and Millstein (1999) argue that one reason for not finding any relationship is because they have used “old” data – that is, data that preceded the board monitoring role in the current-year and performance. However, they found no difference in the result when they used the lagged year’s performance.

#### **Hypothesis 2: Management and committee monitoring and firm performance**

The results of management and committee monitoring and their impact on firm performance exhibit inconsistent but significant results in regard to accounting and hybrid performance.

##### *Accounting performance measures*

The data in Table 4 shows an association between monitoring by the management and committee and firm performance. A significant relationship is found when performance is measured by ROE and ROA. Nevertheless the results reveal that management monitoring does have some positive effect on accounting performance.

In relation to EPS, this performance measure reflects how much has been earned during the financial year for each of the shares held. *Earnings* are an accounting number that reflect both the firm’s economic results and management’s accounting policy choices. The results in Table 4 show no significant relationship between management monitoring and EPS, suggesting that management does not cause a significantly higher or lower EPS. This result does not identify whether stronger management and committee monitoring does, in fact, achieve superior economic results for the firm in any one year, which are *smoothed [smoothed over?]* in the reported EPS due to the accepted accounting policy choice.

##### *Hybrid performance measures*

Similar to accounting performance measures, the data in Table 4 shows that there is a significant association between monitoring by the management and committee and hybrid performance measures. Results find a significant relationship between monitoring by management and firm performance as measured by PER, MBV and DY.

A relatively higher PER could be a reflection of whether investors are willing to pay a market premium relative to current reported earnings due to the monitoring activities of management and committee. In this section, it is not surprising that a relationship is found between management and committee monitoring and PER.

Table 4 shows a significant relationship between management monitoring and MBV. Higher market capitalisation to book value of equity is deemed to reflect a stronger intellectual capital and intangibles that are not recorded in book value. The results infer that management and committee influence over



management leads to the development of greater unidentifiable goodwill by the firm. However, many factors affect MBV, so this is a very tentative inference.

Table 4 provides results for management monitoring and performance as measured by the DY. It shows that in 2008 the relationship is significant. This suggests that management monitoring can occasionally affect management decisions concerning dividend payout relative to market price of shares.

The result is evident that analysis failed to reject the proposition. There is a clear pattern in market performance, although, the results in Table 4 do not provide a clear pattern of relationship between management and committee monitoring and accounting firm performance. One possible reason for these inconsistent results is the presence of substitution or complementary effects among the range of governance mechanisms. These may encourage the firm to rely on various monitoring devices and structures.

### **Hypothesis 3: Auditor-based construct and firm performance**

As a monitor of the reported performance of any company, external auditors are responsible for safeguarding accounting information used for decision-making. Auditors do not directly monitor business but they do indirectly monitor business due to their audit function. Monitoring by auditors is reflected in accounting and hybrid performance measures. The following analysis reveals auditor monitoring on firm performance.

#### *Accounting performance measures*

Table 4 shows that there is no relationship between monitoring by auditors and firm performance when measured by ROE or ROA. This might be expected because auditor monitoring is concerned with ensuring accounting numbers are *true and fair* without being systematically biased in any year. There is a significant positive relationship between the monitoring by auditors and their effect on the EPS for 2008.

#### *Hybrid performance measures*

Similar to accounting measures, Table 4 shows that there is a relationship between monitoring by auditors and market performance when measured by PER. A further test using MBV shows that a significantly negative relationship exists in 2008. This relationship shows that when auditor monitoring increases, MBV value decreases significantly.

These results again present a quite inconsistent picture. The curious finding is that auditor monitoring is negatively related to MBV. The explanation may be that higher quality auditors will generate financial statements that contain more up-to-date fair values of assets and more recognition of intangible assets,

thereby increasing the reported book value of net assets, which can lower MBV.

In the final column of Table 4, there is a significantly positive relationship in the models for DY. Since DY is a reflection in part of sound cash management (i.e. ability to pay regular and increasing cash dividends), the quality of auditing and assurance services would benefit the firm's cash management.

Overall, the results for relationships between auditor monitoring and firm performance are mixed. The results show both significant and insignificant; and both positive and negative outcome. Therefore, the result failed to reject this hypothesis. It is again posited that a key reason for not uncovering a consistent pattern of relationships is the presence of substitute effects among the governance variables. The possible interdependence among auditing and other monitoring mechanisms may explain the differences in relationships between individual monitoring mechanisms and performance measures over the period.

### **Robustness Tests**

One set of robustness tests involved verifying the statistical inferences by testing the sample for the backward (for the year 2007) and forward (for 2009) years lagged model and seeing how the monitoring effects compared to one year lagged models. All lagged models conclude that one-year forward lagged models are more reflective of performance compared to one-year backward lagged models.

Therefore it is assumed that results of current monitoring will be reflected in the year immediately after the financial information is published. There can be two probable explanations for the results of the robustness tests. Firstly, it suggests that the effect of monitoring is reflected on a concurrent basis. Secondly, as suggested in the literature, if the shareholders are not satisfied with the firm's performance they 'exit' immediately rather than using their 'voice'.

### **Conclusion**

The concept of corporate governance is fairly new in Bangladesh and its current status is far from adequate. However, it is encouraging that in recent years this subject is being discussed in various forums among entrepreneurs, corporate managers, regulators and academics. Most Bangladeshi companies have concentrated ownership structures with a strong family orientation. The board of directors, dominated by sponsor shareholders often from the same family, control decision-making processes and annual general meetings are mostly ineffective. The board is often enthusiastically involved in management while the CEO's role is marginal. Independent directors - when there is any - can seldom act independently or play his/her role as an effective advocate for minority shareholders or as a useful deterrent to irregular

practices. Shareholder activism is still not a very popular concept in Bangladesh. Lack of auditor independence frequently gets in the way of transparent financial disclosures. In many companies, there is practically no accountability structure of the management to the board or shareholders. In the absence of any structured government mechanism, there is no central authority to enforce even minimum practice of corporate governance.

With a few exceptions, all the models suggest that there is a limited discernable pattern of significant relationships between monitoring as carried out by board of directors, audit committee, management, auditors and performance. The most likely reason for there not being any consistent pattern is that most companies are family oriented. Such concentrated ownership structures affect the effectiveness of corporate monitoring mechanisms, which are weaknesses that cannot be rectified by laws and regulations. There is neither any value judgment nor any consequences for corporate governance practices. The current system in Bangladesh does not provide sufficient legal, institutional and economic motivation for stakeholders to encourage and enforce corporate monitoring practices. This result is consistent with Nandelstadh and Rosenberg (2003) who also find limited combinations of internal and external corporate governance mechanisms associated with firm performance. They based their conclusion on an analysis of data from Finnish publicly-listed companies during 1990–2000.

This study has policy implications for the corporate environment in Bangladesh. When considering any change in corporate monitoring, the Bangladeshi government should take into account the nation's business and legal practices and culture.

### Limitations and Future Research Avenues

There are a number of limitations that may influence the results of this study, and these need to be addressed in order to improve the integrity of future research in this area.

Three accounting bases and three hybrid measurements were used in this study. Accounting measures of performance are subjected to accounting policy choice, while market measures of performance are affected by market inefficiencies. Consequently, this strategy may impede on some important performance features that could be obtained through other tools. Therefore, this study may not accurately report companies' intrinsic performance.

This study did not consider other market and regulatory mechanisms that have been used in single country studies. Capital market, managerial labour market and legal systems are common to all firms and there is little scope in differentiating these factors (Agrawal and Knoeber, 1996; Denis and McConnell, 2003). Jensen (1993) states that the legal system which in itself is a corporate governance mechanism,

is too blunt to deal with agency problems between managers and shareholders. The same is true for the labour and capital market.

Future research should focus on examining whether there are any substitutions or complementary effects existing between different monitoring mechanisms, specifically: ownership and board of directors monitoring; board of directors and auditor monitoring; and ownership and auditor monitoring and firm performance.

### Reference

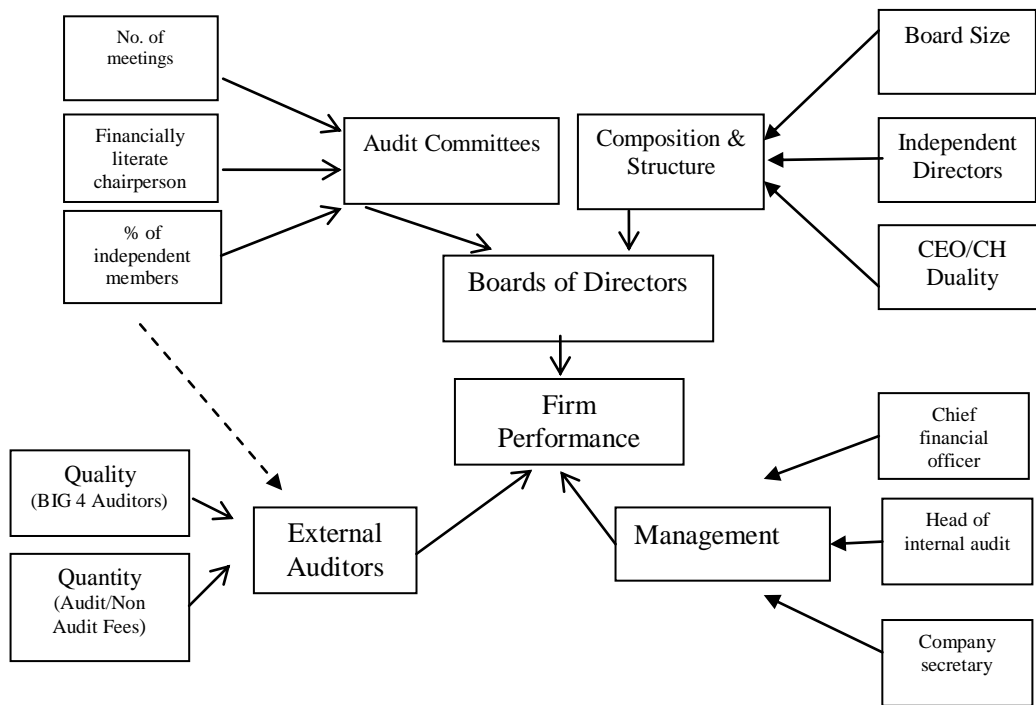
1. Abbott, L.J. & Parker, S. 2000. Auditor selection and audit committee characteristics. *Auditing: A Journal of Practice and Theory*, 19: 47 - 66.
2. Agrawal, A. & Knoeber, C.R. 1996. Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 31: 377 - 397.
3. Arrunada, B. 1999. The provision of non-audit services by auditors let the market evolve and decide. *International Review of Law and Economics*, 19: 513 - 531.
4. Austin D.V. 2002. Independence of the board committees. *Hoosier Banker*, 86: 8 - 10.
5. Bhagat, S. & Black, B. 2002. The non-correlation between board independence and long-term firm performance. *Journal of Corporate Law*. 27(2): 231 - 273.
6. Bosch, H. 1995. *Corporate Practice and Conduct*, 3rd edn, Business Council of Australia (Pittman Publishing).
7. Butterworth, S. & Houghton, K.A. 1995. Auditor switching and the pricing of audit services. *Journal of Business Finance and Accounting*, 22: 323 - 344.
8. Cadbury, A. 1995. *Committee on the financial aspects of corporate governance: Compliance with the code of best practice*. Gee Publishing, London.
9. Chen, Y.M., Moroney, R., & Houghton, K. 2005. Audit committee composition and the use of an industry specialist audit firm. *Accounting and Finance*, 45: 217 - 239.
10. Craswell, A.T., Francis, J.R., & Taylor, S.L. 1995. Auditor brand name reputations and industry specializations. *Journal of Accounting and Economics*, 20: 297 - 322.
11. Davis, L.R., Ricchiute, D.N., and Trompeter, G. 1993. Audit effort, audit fees, and the provision of non-audit services to audit clients. *The Accounting Review*, 68: 135 - 150.
12. DeAngelo, L.E. 1981. Auditor size and audit quality, *Journal of Accounting and Economics*, 3: 183 - 199.
13. Dechow, P.M., Sloan, R.G., & Sweeney, A.P. 1996. Causes and consequences of earnings manipulation: an analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13: 1 - 36.
14. Denis, D.K. & McConnell, J.J. 2003. International corporate governance. *Journal of Financial and Quantitative Analysis*, 38(1): 1 - 36.

15. DeZoort, F.T. 1997. An investigation of audit committees' oversight responsibilities. *A Journal of Accounting Finance and Business Studies*, 208 - 227.
16. Donaldson, L. 1990. The ethereal hand: organisational economics and management theory. *Academy of Management Review*, 15(3): 369 – 381.
17. Donaldson, L. & Davis, J.H. 1991. Stewardship theory or agency theory: CEO governance and shareholders returns. *Australian Journal of Management*, 16 (1): 49 – 64.
18. Donaldson, L. & Davis, J.H. 1994. Board and company performance – research challenges the conventional wisdom, *Corporate Governance: An international Review*, 2 (3): 151 – 160.
19. Dye, R. 1993. Auditing standards, legal liability, and auditor wealth, *Journal of Political Economy*, 101: 887 - 914.
20. Fama, E.F. 1980. Agency problems and the theory of the firm. *Journal of Political Economy*, 88: 288 - 307.
21. Fama, E.F. & Jensen, M.C. 1983a. Separation of control and ownership. *Journal of Law and Economics*, 26: 301 - 325.
22. Fama, E.F. & Jensen, M.C. 1983b. Agency problems and residual claims. *Journal of Law and Economics*, 26: 327 - 349.
23. Farooq, O. & Sheraz A. 2007. Do Governance Reforms Increase Information of Analysts' Stock Recommendations? Evidence From a Newly Emerging Market, Paper presented at the *International Research Conference on Corporate Governance in Emerging Markets*, Istanbul, 15-18 November.
24. Farrar, J.H. 2008. *Corporate Governance: Theories, Principles and Practice*. Melbourne: Oxford University Press. 3<sup>rd</sup> Edition.
25. Golden, B.R. & Zajac, E.J. 2001. When will boards influence strategy? Inclination x power = strategic change. *Strategic Management Journal*, 22: 1087 – 1111.
26. Hermalin, B.E. & Weisbach, M.S. 2003. Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review*, 9: 7 - 26.
27. Hermalin B.E. & Weisbach, M.S. 1991. The effects of board composition and direct incentives on firm performance. *Financial Management*, 101 – 112.
28. Hermalin B.E. & Weisbach, M.S. 2001. Board of directors as an endogenously determined institution: a survey of the economic literature, *FRBNY Economic Policy Review*, 1 – 20.
29. Holderness, C.G. 2003. A survey of blockholders and corporate control, *Federal Reserve Bank of New York Economic Policy Review*, 9: 51- 63.
30. Jensen, M.C. 1993. The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance*, 48: 831 - 880.
31. Jensen, M.C. & Meckling, W. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3: 305 - 360.
32. Kaplan, S.N. & Minton, B. 1994. Appointments of outsiders to Japanese boards: determinants and implications for managers. *Journal of Financial Economics*, 36: 225 – 257.
33. Kiel, G.C. & Nicholson, G.J. 2003. Board composition and corporate performance: how the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, 11 (3): 189 - 205
34. Klein, A. 1998. Firm performance and board committee structure. *Journal of Law and Economics*, 41: 275 – 299.
35. Lipton, M., & Lorsch, J. 1992. A modest proposal for improved corporate governance. *Business Lawyer*, 48: 59 - 77.
36. MacAvoy, P. & Millstein, I.M. 1999. The active board of directors and its effect on performance of the large publicly traded corporation. *Journal of Applied Corporate Finance*, 11 (4): 8 – 20.
37. Mehran, H. 1995. Executive compensation structure, ownership and firm performance. *Journal of Financial Economics*, 38: 163 – 184.
38. Menon, K. & Williams, J.D. 1994. The use of audit committees for monitoring. *Journal of Accounting and Public Policy*, 13: 121 - 139.
39. Palmrose, Z. 1986. The effect of non-audit services on the pricing of audit services: further evidence. *Journal of Accounting Research*, 24: 405 - 411.
40. Ramsay, I. 2001. *Independent of Australian company auditors: Review of current Australian requirements and proposals for reform*. Report of University of Melbourne, Melbourne, Victoria.
41. Rediker, K.J. Seth, A. 1995. Boards of directors and substitution effects of alternative governance mechanisms. *Strategic Management Journal*, 16: 85 - 99.
42. Roundtable discussion on *corporate governance guidelines of SEC and Its implementation practices in Bangladesh 2006*. Dhaka Stock Exchange. Retrieved May 12, 2007 from: <http://www.dsebd.org/pdf/roundtable.pdf>.
43. Ryan H.E & Wiggins R.A. 2004. Who is in whose pocket? Director compensation, board independence, and barriers to effective monitoring. *Journal of Financial Economics*, 73: 497 - 524.
44. Security and Exchange Commission (SEC) 2007. *Stock Exchange Information*. Retrieved May 27, 2007, from <http://www.sec.gov/stock.html>
45. Sharma, D.S. & Sidhu, J. 2001. Professionalism vs. Commercialism: The association between non-audit services (NAS) and audit independence. *Journal of Business Finance and Accounting*, 28 (5 & 6): 595–629.
46. Shivdasani, A. 1993. Board composition, ownership structure, and hostile takeovers. *Journal of Accounting and Economics*, 16: 167 - 198.
47. Simunic, D.A. 1984. Auditing, consulting and auditor independence. *Journal of Accounting Research*, 22: 679-702.
48. Solaiman S.M. 2006. Recent reforms and the development of the securities market in Bangladesh. *Journal of Asian and African Studies*, 41(3), 195–228.

49. Suchard, J.A., Singh M., & Barr, R. 2001. The market effects of CEO turnover in Australian firms. *Pacific-Basin Finance Journal*, 9: 1–27.
50. USAid 2007, *USAid Bangladesh program summary*, web address: <http://www.usaid.gov/bd/program.html>, visited on 12 Feb, 2009.
51. Watts, R. L. & Zimmerman, J. L. 1990. Positive accounting theory: A ten-year perspective. *The Accounting Review*, 65: 131 – 156.
52. Wooldridge, M.J. 2003. *Introductory Econometrics: A Modern Approach* Thomson, Ohio.

**Appendices**

**Figure 1. Monitoring Model**



**Table 1.** List of Variables

**Variables:**

**Management Monitoring:**

CFO= Chief financial officer  
HIA = Head of internal audit  
CS = Company secretary

**Board of Directors & Audit Committees:**

BSIZ = Number of directors on the board  
PBI = Proportion of independent directors on the board  
CHCE = CEO and Chairperson of the board  
PAF = Proportion of Financially Literate directors on the audit committee  
PAI = One tenth directors are independent on the AC  
QAC =Professional qualifications of the chair of audit committee

**External Auditors:**

BIG 4 = Affiliation/link with Big 4 audit firm  
PNAF = Proportion of audit/non-audit fees

**Control Variable:**

SIZE A: Size of the firm based on log of total assets  
SIZE B: Size of the firm based on log of total sales

**Performance Measures:**

ROE = Return on equity  
ROA =Return on asset  
EPS = Earning per share  
PER = Price earning ratio  
M/BV = Market to book value  
DY = Dividend Yield

**Table 2.** Descriptive statistics regarding monitoring measures  
(Sample Size: 281 Companies)

Monitoring Variables	Minimum	Maximum	Mean	Median	S.D
Chief financial officer (0,1)	87.18%				
Head of internal audit (0,1)	86.83				
Company secretary (0,1)	87.54%				
Size of the Boards (number)	3	22	8.4	6.1	6.245
Proportion of Independent directors on the Boards	0	.95	0.675	0.81	.295
Dual role of Chairperson and CEO (0,1)	86.47%				
Proportion of Financially Literate directors on the audit committee (0-1)	63.23%				
One tenth directors are Independent on the Audit Committee (0 -1)	71.88%				
Professional qualification of the chairperson of audit committee (0,1)	69.07%				
Big 4 Audit firms (0,1)	37%				
Proportion of non-audit service fees (NAF/TAF)	.12	.23	.29	.26	.36
Return on Equity (ROE)	-1.142	0.356	0.224	0.184	1.672
Return on Assets (ROA)	-0.45	0.37	0.083	0.081	0.068
Earning per share (EPS)	-153.65	645.74	22.4	10.45	51.37
Price earning ratio (PER)	6.78	16.34	7.34	8.52	3.45
Market to book value (MBV)	-20.654	79.501	1.030	0.705	4.256
Dividend Yield (DY)	5.45	45.76	25.46	22.54	3.45
Size A (Log Assets)	1.921	9.568	5.678	6.246	1.457
Size S (Log Sales)	-3.765	10.356	6.215	5.456	1.987

**Table 3.** Structural Equation Model Fitness

Current year Model 2008						
Model	$\chi^2$ (df)	$\Delta\chi^2$ ( $\Delta$ df)	RMSES	AGFI	CFI	NFI
Return on Equity	247.367	2.176	.050	.911	.960	.926
Return on Assets	214.206	2.231	.053	.920	.918	.924
Earning Per Share	275.162	2.310	.051	.907	.955	.925
Price Earning Ratio	257.438	2.127	.047	.912	.960	.912
Market to Book Value	266.517	2.145	.051	.911	.930	.928
Dividend Yield	273.258	2.272	.052	.909	.957	.921

Backward Lagged Year Performance 2007						
Model	$\chi^2$ (df)	$\Delta\chi^2$ ( $\Delta$ df)	RMSES	AGFI	CFI	NFI
Return on Equity	293.620	2.352	.054	.903	.962	.933
Return on Assets	281.807	2.189	.052	.906	.963	.937
Earning Per Share	287.249	2.315	.053	.904	.961	.935
Price Earning Ratio	282.503	2.316	.053	.904	.962	.938
Market to Book Value	297.032	2.393	.054	.902	.961	.932
Dividend Yield	295.637	2.381	.054	.902	.961	.933

Forward Lagged Year Performance 2009						
Model	$\chi^2$ (df)	$\Delta\chi^2$ ( $\Delta$ df)	RMSES	AGFI	CFI	NFI
Return on Equity	237.456	1.931	.045	.913	.920	.901
Return on Assets	255.017	2.073	.048	.915	.942	.893
Earning Per Share	257.627	2.094	.049	.913	.982	.899
Price Earning Ratio	244.119	1.977	.046	.921	.928	.900
Market to Book Value	233.116	1.888	.044	.921	.931	.901
Dividend Yield	230.337	1.930	.045	.921	.940	.902

Here,

$\chi^2$  (df) = Chi- Square

AGFI = Adjusted goodness of fit index (acceptable limit => .90)

$\Delta\chi^2$  ( $\Delta$  df) = Normed Chi-Square (Acceptable limit 1 – 5; 1 = best fit, 5 = reasonable fit)

CFI = Comparative fit index (0 = no fit at all, 1 = perfect fit)

RMSES = Root mean square (.05 or less indicate a close fit)

NFI = Normal fit index (0 = no fit at all, 1 = perfect fit)

(Source: Hair et al., 2006)

**Table 4.** Monitoring and Performance

	ROE	ROA	EPS	PER	MBV	DY
Shareholder monitoring and Performance (2008)	0.023 (0.053) *	0.012 (0.003) **	0.978 (0.197)	-0.926 (0.005) **	-0.099 (0.037)*	0.001 (0.011)**
Management Monitoring and Performance (2008)	0.017 (0.768)	0.058 (0.972)	-0.780 (0.551)	0.054 (0.008) **	0.035 (0.048) *	-0.003 (0.005) **
Auditor monitoring and Performance (2008)	0.239 (0.618)	0.121 (0.175)	5.186 (0.005) **	- 0.891 (0.861)	- 0.921 (0.000) **	0.04 (0.005) **

\*\* Significant at the .01 level.

\* Significant at the .05 level.

Note: Values in the bracket indicates “P value”.